



templst.txt

SEQUENCE LISTING

<110> Iozzo, Renato V.

<120> Endorepellin: methods and compositions
for inhibiting angiogenesis

<130> 8321-95

<140> 10/006,011

<141> 2001-12-04

<160> 10

<170> FastSEQ for windows Version 4.0

<210> 1

<211> 6

<212> PRT

<213> human

<220>

<223> frag. 3927-4181

<400> 1

Asp Ala Pro Gly Gln Tyr
1 5

<210> 2

<211> 4391

<212> PRT

<213> human

<400> 2

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Gly	Arg	Leu	Leu	Ala	Val	Thr	His	Gly	Leu	Arg	Ala	Tyr	Asp	Gly
		20						25				30		Leu
Ser	Leu	Pro	Glu	Asp	Ile	Glu	Thr	Val	Thr	Ala	Ser	Gln	Met	Arg
		35				40					45			Trp
Thr	His	Ser	Tyr	Leu	Ser	Asp	Glu	Tyr	Met	Leu	Ala	Asp	Ser	Ile
	50				55				60					
Ser	Gly	Asp	Asp	Leu	Gly	Ser	Gly	Asp	Leu	Gly	Ser	Gly	Asp	Phe
65				70				75						80
Met	Val	Tyr	Phe	Arg	Ala	Leu	Val	Asn	Phe	Thr	Arg	Ser	Ile	Glu
			85					90					95	Tyr
Ser	Pro	Gln	Leu	Glu	Asp	Ala	Gly	Ser	Arg	Glu	Phe	Arg	Glu	Val
		100					105					110		Ser
Glu	Ala	Val	Val	Asp	Thr	Leu	Glu	Ser	Glu	Tyr	Leu	Lys	Ile	Pro
	115					120					125			Gly
Asp	Gln	Val	Val	Ser	Val	Val	Phe	Ile	Lys	Glu	Leu	Asp	Gly	Trp
	130				135					140				Val
Phe	Val	Glu	Leu	Asp	Val	Gly	Ser	Glu	Gly	Asn	Ala	Asp	Gly	Ala
145				150				155						160
Ile	Gln	Glu	Met	Leu	Leu	Arg	Val	Ile	Ser	Ser	Gly	Ser	Val	Ala
			165					170					175	Ser
Tyr	Val	Thr	Ser	Pro	Gln	Gly	Phe	Gln	Phe	Arg	Arg	Leu	Gly	Thr
	180					185						190		Val
Pro	Gln	Phe	Pro	Arg	Ala	Cys	Thr	Glu	Ala	Glu	Phe	Ala	Cys	His
	195					200					205			Ser
Tyr	Asn	Glu	Cys	Val	Ala	Leu	Glu	Tyr	Arg	Cys	Asp	Arg	Arg	Pro
														Asp

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210					215					220					
Cys	Arg	Asp	Met	Ser	Asp	Glu	Leu	Asn	Cys	Glu	Glu	Pro	Val	Leu	Gly
225					230				235						240
Ile	Ser	Pro	Thr	Phe	Ser	Leu	Leu	Val	Glu	Thr	Thr	Ser	Leu	Pro	Pro
				245					250					255	
Arg	Pro	Glu	Thr	Thr	Ile	Met	Arg	Gln	Pro	Pro	Val	Thr	His	Ala	Pro
			260					265					270		
Gln	Pro	Leu	Leu	Pro	Gly	Ser	Val	Arg	Pro	Leu	Pro	Cys	Gly	Pro	Gln
		275					280					285			
Glu	Ala	Ala	Cys	Arg	Asn	Gly	His	Cys	Ile	Pro	Arg	Asp	Tyr	Leu	Cys
	290					295					300				
Asp	Gly	Gln	Glu	Asp	Cys	Glu	Asp	Gly	Ser	Asp	Glu	Leu	Asp	Cys	Gly
305					310				315					320	
Pro	Pro	Pro	Pro	Cys	Glu	Pro	Asn	Glu	Phe	Pro	Cys	Gly	Asn	Gly	His
				325					330					335	
Cys	Ala	Leu	Lys	Leu	Trp	Arg	Cys	Asp	Gly	Asp	Phe	Asp	Cys	Glu	Asp
			340					345					350		
Arg	Thr	Asp	Glu	Ala	Asn	Cys	Pro	Thr	Lys	Arg	Pro	Glu	Glu	Val	Cys
		355					360					365			
Gly	Pro	Thr	Gln	Phe	Arg	Cys	Val	Ser	Thr	Asn	Met	Cys	Ile	Pro	Ala
	370					375					380				
Ser	Phe	His	Cys	Asp	Glu	Glu	Ser	Asp	Cys	Pro	Asp	Arg	Ser	Asp	Glu
385					390				395					400	
Phe	Gly	Cys	Met	Pro	Pro	Gln	Val	Val	Thr	Pro	Pro	Arg	Glu	Ser	Ile
				405					410					415	
Gln	Ala	Ser	Arg	Gly	Gln	Thr	Val	Thr	Phe	Thr	Cys	Val	Ala	Ile	Gly
			420					425					430		
Val	Pro	Thr	Pro	Ile	Ile	Asn	Trp	Arg	Leu	Asn	Trp	Gly	His	Ile	Pro
		435				440						445			
Ser	His	Pro	Arg	Val	Thr	Val	Thr	Ser	Glu	Gly	Gly	Arg	Gly	Thr	Leu
	450					455					460				
Ile	Ile	Arg	Asp	Val	Lys	Glu	Ser	Asp	Gln	Gly	Ala	Tyr	Thr	Cys	Glu
465					470				475					480	
Ala	Met	Asn	Ala	Arg	Gly	Met	Val	Phe	Gly	Ile	Pro	Asp	Gly	Val	Leu
				485					490					495	
Glu	Leu	Val	Pro	Gln	Arg	Gly	Pro	Cys	Pro	Asp	Gly	His	Phe	Tyr	Leu
			500					505					510		
Glu	His	Ser	Ala	Ala	Cys	Leu	Pro	Cys	Phe	Cys	Phe	Gly	Ile	Thr	Ser
		515					520					525			
Val	Cys	Gln	Ser	Thr	Arg	Arg	Phe	Arg	Asp	Gln	Ile	Arg	Leu	Arg	Phe
	530					535					540				
Asp	Gln	Pro	Asp	Asp	Phe	Lys	Gly	Val	Asn	Val	Thr	Met	Pro	Ala	Gln
545					550				555					560	
Pro	Gly	Thr	Pro	Pro	Leu	Ser	Ser	Thr	Gln	Leu	Gln	Ile	Asp	Pro	Ser
				565					570					575	
Leu	His	Glu	Phe	Gln	Leu	Val	Asp	Leu	Ser	Arg	Arg	Phe	Leu	Val	His
			580					585					590		
Asp	Ser	Phe	Trp	Ala	Leu	Pro	Glu	Gln	Phe	Leu	Gly	Asn	Lys	Val	Asp
		595					600					605			
Ser	Tyr	Gly	Gly	Ser	Leu	Arg	Tyr	Asn	Val	Arg	Tyr	Glu	Leu	Ala	Arg
	610					615					620				
Gly	Met	Leu	Glu	Pro	Val	Gln	Arg	Pro	Asp	Val	Val	Leu	Val	Gly	Ala
625					630				635					640	
Gly	Tyr	Arg	Leu	Leu	Ser	Arg	Gly	His	Thr	Pro	Thr	Gln	Pro	Gly	Ala
				645					650					655	
Leu	Asn	Gln	Arg	Gln	Val	Gln	Phe	Ser	Glu	Glu	His	Trp	Val	His	Glu
			660					665					670		
Ser	Gly	Arg	Pro	Val	Gln	Arg	Ala	Glu	Leu	Leu	Gln	Val	Leu	Gln	Ser
		675					680					685			
Leu	Glu	Ala	Val	Leu	Ile	Gln	Thr	Val	Tyr	Asn	Thr	Lys	Met	Ala	Ser
	690					695					700				
Val	Gly	Leu	Ser	Asp	Ile	Ala	Met	Asp	Thr	Thr	Val	Thr	His	Ala	Thr
705					710				715						720

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Ser His Gly Arg Ala His Ser Val Glu Glu Cys Arg Cys Pro Ile Gly
725 730 735
Tyr Ser Gly Leu Ser Cys Glu Ser Cys Asp Ala His Phe Thr Arg Val
740 745 750
Pro Gly Gly Pro Tyr Leu Gly Thr Cys Ser Gly Cys Ser Cys Asn Gly
755 760 765
His Ala Ser Ser Cys Asp Pro Val Tyr Gly His Cys Leu Asn Cys Gln
770 775 780
His Asn Thr Glu Gly Pro Gln Cys Asn Lys Cys Lys Ala Gly Phe Phe
785 790 795 800
Gly Asp Ala Met Lys Ala Thr Ala Thr Ser Cys Arg Pro Cys Pro Cys
805 810 815
Pro Tyr Ile Asp Ala Ser Arg Arg Phe Ser Asp Thr Cys Phe Leu Asp
820 825 830
Thr Asp Gly Gln Ala Thr Cys Asp Ala Cys Ala Pro Gly Tyr Thr Gly
835 840 845
Arg Arg Cys Glu Ser Cys Ala Pro Gly Tyr Glu Gly Asn Pro Ile Gln
850 855 860
Pro Gly Gly Lys Cys Arg Pro Val Asn Gln Glu Ile Val Arg Cys Asp
865 870 875 880
Glu Arg Gly Ser Met Gly Thr Ser Gly Glu Ala Cys Arg Cys Lys Asn
885 890 895
Asn Val Val Gly Arg Leu Cys Asn Glu Cys Ala Asp Gly Ser Phe His
900 905 910
Leu Ser Thr Arg Asn Pro Asp Gly Cys Leu Lys Cys Phe Cys Met Gly
915 920 925
Val Ser Arg His Cys Thr Ser Ser Ser Trp Ser Arg Ala Gln Leu His
930 935 940
Gly Ala Ser Glu Glu Pro Gly His Phe Ser Leu Thr Asn Ala Ala Ser
945 950 955 960
Thr His Thr Thr Asn Glu Gly Ile Phe Ser Pro Thr Pro Gly Glu Leu
965 970 975
Gly Phe Ser Ser Phe His Arg Leu Leu Ser Gly Pro Tyr Phe Trp Ser
980 985 990
Leu Pro Ser Arg Phe Leu Gly Asp Lys Val Thr Ser Tyr Gly Gly Glu
995 1000 1005
Leu Arg Phe Thr Val Thr Gln Arg Ser Gln Pro Gly Ser Thr Pro Leu
1010 1015 1020
His Gly Gln Pro Leu Val Val Leu Gln Gly Asn Asn Ile Ile Leu Glu
1025 1030 1035 1040
His His Val Ala Gln Glu Pro Ser Pro Gly Gln Pro Ser Thr Phe Ile
1045 1050 1055
Val Pro Phe Arg Glu Gln Ala Trp Gln Arg Pro Asp Gly Gln Pro Ala
1060 1065 1070
Thr Arg Glu His Leu Leu Met Ala Leu Ala Gly Ile Asp Thr Leu Leu
1075 1080 1085
Ile Arg Ala Ser Tyr Ala Gln Gln Pro Ala Glu Ser Arg Val Ser Gly
1090 1095 1100
Ile Ser Met Asp Val Ala Val Pro Glu Glu Thr Gly Gln Asp Pro Ala
1105 1110 1115 1120
Leu Glu Val Glu Gln Cys Ser Cys Pro Pro Gly Tyr Arg Gly Pro Ser
1125 1130 1135
Cys Gln Asp Cys Asp Thr Gly Tyr Thr Arg Thr Pro Ser Gly Leu Tyr
1140 1145 1150
Leu Gly Thr Cys Glu Arg Cys Ser Cys His Gly His Ser Glu Ala Cys
1155 1160 1165
Glu Pro Glu Thr Gly Ala Cys Gln Gly Cys Gln His His Thr Glu Gly
1170 1175 1180
Pro Arg Cys Glu Gln Cys Gln Pro Gly Tyr Tyr Gly Asp Ala Gln Arg
1185 1190 1195 1200
Gly Thr Pro Gln Asp Cys Gln Leu Cys Pro Cys Tyr Gly Asp Pro Ala
1205 1210 1215
Ala Gly Gln Ala Ala His Thr Cys Phe Leu Asp Thr Asp Gly His Pro

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1220 1225 1230
 Thr Cys Asp Ala Cys Ser Pro Gly His Ser Gly Arg His Cys Glu Arg
 1235 1240 1245
 Cys Ala Pro Gly Tyr Tyr Gly Asn Pro Ser Gln Gly Gln Pro Cys Gln
 1250 1255 1260
 Arg Asp Ser Gln Val Pro Gly Pro Ile Gly Cys Asn Cys Asp Pro Gln
 1265 1270 1275 1280
 Gly Ser Val Ser Ser Gln Cys Asp Ala Ala Gly Gln Cys Gln Cys Lys
 1285 1290 1295
 Ala Gln Val Glu Gly Leu Thr Cys Ser His Cys Arg Pro His His Phe
 1300 1305 1310
 His Leu Ser Ala Ser Asn Pro Asp Gly Cys Leu Pro Cys Phe Cys Met
 1315 1320 1325
 Gly Ile Thr Gln Gln Cys Ala Ser Ser Ala Tyr Thr Arg His Leu Ile
 1330 1335 1340
 Ser Thr His Phe Ala Pro Gly Asp Phe Gln Gly Phe Ala Leu Val Asn
 1345 1350 1355 1360
 Pro Gln Arg Asn Ser Arg Leu Thr Gly Glu Phe Thr Val Glu Pro Val
 1365 1370 1375
 Pro Glu Gly Ala Gln Leu Ser Phe Gly Asn Phe Ala Gln Leu Gly His
 1380 1385 1390
 Glu Ser Phe Tyr Trp Gln Leu Pro Glu Thr Tyr Gln Gly Asp Lys Val
 1395 1400 1405
 Ala Ala Tyr Gly Gly Lys Leu Arg Tyr Thr Leu Ser Tyr Thr Ala Gly
 1410 1415 1420
 Pro Gln Gly Ser Pro Leu Ser Asp Pro Asp Val Gln Ile Thr Gly Asn
 1425 1430 1435 1440
 Asn Ile Met Leu Val Ala Ser Gln Pro Ala Leu Gln Gly Pro Glu Arg
 1445 1450 1455
 Arg Ser Tyr Glu Ile Met Phe Arg Glu Glu Phe Trp Arg Arg Pro Asp
 1460 1465 1470
 Gly Gln Pro Ala Thr Arg Glu His Leu Leu Met Ala Leu Ala Asp Leu
 1475 1480 1485
 Asp Glu Leu Leu Ile Arg Ala Thr Phe Ser Ser Val Pro Leu Val Ala
 1490 1495 1500
 Ser Ile Ser Ala Val Ser Leu Glu Val Ala Gln Pro Gly Pro Ser Asn
 1505 1510 1515 1520
 Arg Pro Arg Ala Leu Glu Val Glu Glu Cys Arg Cys Pro Pro Gly Tyr
 1525 1530 1535
 Ile Gly Leu Ser Cys Gln Asp Cys Ala Pro Gly Tyr Thr Arg Thr Gly
 1540 1545 1550
 Ser Gly Leu Tyr Leu Gly His Cys Glu Leu Cys Glu Cys Asn Gly His
 1555 1560 1565
 Ser Asp Leu Cys His Pro Glu Thr Gly Ala Cys Ser Gln Cys Gln His
 1570 1575 1580
 Asn Ala Ala Gly Glu Phe Cys Glu Leu Cys Ala Pro Gly Tyr Tyr Gly
 1585 1590 1595 1600
 Asp Ala Thr Ala Gly Thr Pro Glu Asp Cys Gln Pro Cys Ala Cys Pro
 1605 1610 1615
 Leu Thr Asn Pro Glu Asn Met Phe Ser Arg Thr Cys Glu Ser Leu Gly
 1620 1625 1630
 Ala Gly Gly Tyr Arg Cys Thr Ala Cys Glu Pro Gly Tyr Thr Gly Gln
 1635 1640 1645
 Tyr Cys Glu Gln Cys Gly Pro Gly Tyr Val Gly Asn Pro Ser Val Gln
 1650 1655 1660
 Gly Gly Gln Cys Leu Pro Glu Thr Asn Gln Ala Pro Leu Val Val Glu
 1665 1670 1675 1680
 Val His Pro Ala Arg Ser Ile Val Pro Gln Gly Gly Ser His Ser Leu
 1685 1690 1695
 Arg Cys Gln Val Ser Gly Ser Pro Pro His Tyr Phe Tyr Trp Ser Arg
 1700 1705 1710
 Glu Asp Gly Arg Pro Val Pro Ser Gly Thr Gln Gln Arg His Gln Gly
 1715 1720 1725

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Ser Glu Leu His Phe Pro Ser Val Gln Pro Ser Asp Ala Gly Val Tyr
1730 1735 1740
Ile Cys Thr Cys Arg Asn Leu His Gln Ser Asn Thr Ser Arg Ala Glu
1745 1750 1755 1760
Leu Leu Val Thr Glu Ala Pro Ser Lys Pro Ile Thr Val Thr Val Glu
1765 1770 1775
Glu Gln Arg Ser Gln Ser Val Arg Pro Gly Ala Asp Val Thr Phe Ile
1780 1785 1790
Cys Thr Ala Lys Ser Lys Ser Pro Ala Tyr Thr Leu Val Trp Thr Arg
1795 1800 1805
Leu His Asn Gly Lys Leu Pro Thr Arg Ala Met Asp Phe Asn Gly Ile
1810 1815 1820
Leu Thr Ile Arg Asn Val Gln Leu Ser Asp Ala Gly Thr Tyr Val Cys
1825 1830 1835 1840
Thr Gly Ser Asn Met Phe Ala Met Asp Gln Gly Thr Ala Thr Leu His
1845 1850 1855
Val Gln Ala Ser Gly Thr Leu Ser Ala Pro Val Val Ser Ile His Pro
1860 1865 1870
Pro Gln Leu Thr Val Gln Pro Gly Gln Leu Ala Glu Phe Arg Cys Ser
1875 1880 1885
Ala Thr Gly Ser Pro Thr Pro Thr Leu Glu Trp Thr Gly Gly Pro Gly
1890 1895 1900
Gly Gln Leu Pro Ala Lys Ala Gln Ile His Gly Gly Ile Leu Arg Leu
1905 1910 1915 1920
Pro Ala Val Glu Pro Thr Asp Gln Ala Gln Tyr Leu Cys Arg Ala His
1925 1930 1935
Ser Ser Ala Gly Gln Gln Val Ala Arg Ala Val Leu His Val His Gly
1940 1945 1950
Gly Gly Gly Pro Arg Val Gln Val Ser Pro Glu Arg Thr Gln Val His
1955 1960 1965
Ala Gly Arg Thr Val Arg Leu Tyr Cys Arg Ala Ala Gly Val Pro Ser
1970 1975 1980
Ala Thr Ile Thr Trp Arg Lys Glu Gly Gly Ser Leu Pro Pro Gln Ala
1985 1990 1995 2000
Arg Ser Glu Arg Thr Asp Ile Ala Thr Leu Leu Ile Pro Ala Ile Thr
2005 2010 2015
Thr Ala Asp Ala Gly Phe Tyr Leu Cys Val Ala Thr Ser Pro Ala Gly
2020 2025 2030
Thr Ala Gln Ala Arg Met Gln Val Val Val Leu Ser Ala Ser Asp Ala
2035 2040 2045
Ser Pro Pro Gly Val Lys Ile Glu Ser Ser Ser Pro Ser Val Thr Glu
2050 2055 2060
Gly Gln Thr Leu Asp Leu Asn Cys Val Val Ala Gly Ser Ala His Ala
2065 2070 2075 2080
Gln Val Thr Trp Tyr Arg Arg Gly Gly Ser Leu Pro Pro His Thr Gln
2085 2090 2095
Val His Gly Ser Arg Leu Arg Leu Pro Gln Val Ser Pro Ala Asp Ser
2100 2105 2110
Gly Glu Tyr Val Cys Arg Val Glu Asn Gly Ser Gly Pro Lys Glu Ala
2115 2120 2125
Ser Ile Thr Val Ser Val Leu His Gly Thr His Ser Gly Pro Ser Tyr
2130 2135 2140
Thr Pro Val Pro Gly Ser Thr Arg Pro Ile Arg Ile Glu Pro Ser Ser
2145 2150 2155 2160
Ser His Val Ala Glu Gly Gln Thr Leu Asp Leu Asn Cys Val Val Pro
2165 2170 2175
Gly Gln Ala His Ala Gln Val Thr Trp His Lys Arg Gly Gly Ser Leu
2180 2185 2190
Pro Ala Arg His Gln Thr His Gly Ser Leu Leu Arg Leu His Gln Val
2195 2200 2205
Thr Pro Ala Asp Ser Gly Glu Tyr Val Cys His Val Val Gly Thr Ser
2210 2215 2220
Gly Pro Leu Glu Ala Ser Val Leu Val Thr Ile Glu Ala Ser Val Ile

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2225 2230 2235 2240
 Pro Gly Pro Ile Pro Val Arg Ile Glu Ser Ser Ser Ser Thr Val
 2245 2250 2255
 Ala Glu Gly Gln Thr Leu Asp Leu Ser Cys Val Val Ala Gly Gln Ala
 2260 2265 2270
 His Ala Gln Val Thr Trp Tyr Lys Arg Gly Gly Ser Leu Pro Ala Arg
 2275 2280 2285
 His Gln Val Arg Gly Ser Arg Leu Tyr Ile Phe Gln Ala Ser Pro Ala
 2290 2295 2300
 Asp Ala Gly Gln Tyr Val Cys Arg Ala Ser Asn Gly Met Glu Ala Ser
 2305 2310 2315 2320
 Ile Thr Val Thr Val Thr Gly Thr Gln Gly Ala Asn Leu Ala Tyr Pro
 2325 2330 2335
 Ala Gly Ser Thr Gln Pro Ile Arg Ile Glu Pro Ser Ser Ser Gln Val
 2340 2345 2350
 Ala Glu Gly Gln Thr Leu Asp Leu Asn Cys Val Val Pro Gly Gln Ser
 2355 2360 2365
 His Ala Gln Val Thr Trp His Lys Arg Gly Gly Ser Leu Pro Val Arg
 2370 2375 2380
 His Gln Thr His Gly Ser Leu Leu Arg Leu Tyr Gln Ala Ser Pro Ala
 2385 2390 2395 2400
 Asp Ser Gly Glu Tyr Val Cys Arg Val Leu Gly Ser Ser Val Pro Leu
 2405 2410 2415
 Glu Ala Ser Val Leu Val Thr Ile Glu Pro Ala Gly Ser Val Pro Ala
 2420 2425 2430
 Leu Gly Val Thr Pro Thr Val Arg Ile Glu Ser Ser Ser Ser Gln Val
 2435 2440 2445
 Ala Glu Gly Gln Thr Leu Asp Leu Asn Cys Leu Val Ala Gly Gln Ala
 2450 2455 2460
 His Ala Gln Val Thr Trp His Lys Arg Gly Gly Ser Leu Pro Ala Arg
 2465 2470 2475 2480
 His Gln Val His Gly Ser Arg Leu Arg Leu Leu Gln Val Thr Pro Ala
 2485 2490 2495
 Asp Ser Gly Glu Tyr Val Cys Arg Val Val Gly Ser Ser Gly Thr Gln
 2500 2505 2510
 Glu Ala Ser Val Leu Val Thr Ile Gln Gln Arg Leu Ser Gly Ser His
 2515 2520 2525
 Ser Gln Gly Val Ala Tyr Pro Val Arg Ile Glu Ser Ser Ser Ala Ser
 2530 2535 2540
 Leu Ala Asn Gly His Thr Leu Asp Leu Asn Cys Leu Val Ala Ser Gln
 2545 2550 2555 2560
 Ala Pro His Thr Ile Thr Trp Tyr Lys Arg Gly Gly Ser Leu Pro Ser
 2565 2570 2575
 Arg His Gln Ile Val Gly Ser Arg Leu Arg Ile Pro Gln Val Thr Pro
 2580 2585 2590
 Ala Asp Ser Gly Glu Tyr Val Cys His Val Ser Asn Gly Ala Gly Ser
 2595 2600 2605
 Arg Glu Thr Ser Leu Ile Val Thr Ile Gln Gly Ser Gly Ser Ser His
 2610 2615 2620
 Val Pro Ser Val Ser Pro Pro Ile Arg Ile Glu Ser Ser Ser Pro Thr
 2625 2630 2635 2640
 Val Val Glu Gly Gln Thr Leu Asp Leu Asn Cys Val Val Ala Arg Gln
 2645 2650 2655
 Pro Gln Ala Ile Thr Trp Tyr Lys Arg Gly Gly Ser Leu Pro Ser
 2660 2665 2670
 Arg His Gln Thr His Gly Ser His Leu Arg Leu His Gln Met Ser Val
 2675 2680 2685
 Ala Asp Ser Gly Glu Tyr Val Cys Arg Ala Asn Asn Asn Ile Asp Ala
 2690 2695 2700
 Leu Glu Ala Ser Ile Val Ile Ser Val Ser Pro Ser Ala Gly Ser Pro
 2705 2710 2715 2720
 Ser Ala Pro Gly Ser Ser Met Pro Ile Arg Ile Glu Ser Ser Ser Ser
 2725 2730 2735

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His Val Ala Glu Gly Glu Thr Leu Asp Leu Asn Cys Val Val Pro Gly
 2740 2745 2750
 Gln Ala His Ala Gln Val Thr Trp His Lys Arg Gly Gly Ser Leu Pro
 2755 2760 2765
 Ser His His Gln Thr Arg Gly Ser Arg Leu Arg Leu His His Val Ser
 2770 2775 2780
 Pro Ala Asp Ser Gly Glu Tyr Val Cys Arg Val Met Gly Ser Ser Gly
 2785 2790 2795 2800
 Pro Leu Glu Ala Ser Val Leu Val Thr Ile Glu Ala Ser Gly Ser Ser
 2805 2810 2815
 Ala Val His Val Pro Ala Pro Gly Gly Ala Pro Pro Ile Arg Ile Glu
 2820 2825 2830
 Pro Ser Ser Ser Arg Val Ala Glu Gly Gln Thr Leu Asp Leu Lys Cys
 2835 2840 2845
 Val Val Pro Gly Gln Ala His Ala Gln Val Thr Trp His Lys Arg Gly
 2850 2855 2860
 Gly Asn Leu Pro Ala Arg His Gln Val His Gly Pro Leu Leu Arg Leu
 2865 2870 2875 2880
 Asn Gln Val Ser Pro Ala Asp Ser Gly Glu Tyr Ser Cys Gln Val Thr
 2885 2890 2895
 Gly Ser Ser Gly Thr Leu Glu Ala Ser Val Leu Val Thr Ile Glu Pro
 2900 2905 2910
 Ser Ser Pro Gly Pro Ile Pro Ala Pro Gly Leu Ala Gln Pro Ile Tyr
 2915 2920 2925
 Ile Glu Ala Ser Ser Ser His Val Thr Glu Gly Gln Thr Leu Asp Leu
 2930 2935 2940
 Asn Cys Val Val Pro Gly Gln Ala His Ala Gln Val Thr Trp Tyr Lys
 2945 2950 2955 2960
 Arg Gly Gly Ser Leu Pro Ala Arg His Gln Thr His Gly Ser Gln Leu
 2965 2970 2975
 Arg Leu His Leu Val Ser Pro Ala Asp Ser Gly Glu Tyr Val Cys Arg
 2980 2985 2990
 Ala Ala Ser Gly Pro Gly Pro Glu Gln Glu Ala Ser Phe Thr Val Thr
 2995 3000 3005
 Val Pro Pro Ser Glu Gly Ser Ser Tyr Arg Leu Arg Ser Pro Val Ile
 3010 3015 3020
 Ser Ile Asp Pro Pro Ser Ser Thr Val Gln Gln Gly Gln Asp Ala Ser
 3025 3030 3035 3040
 Phe Lys Cys Leu Ile His Asp Gly Ala Ala Pro Ile Ser Leu Glu Trp
 3045 3050 3055
 Lys Thr Arg Asn Gln Glu Leu Glu Asp Asn Val His Ile Ser Pro Asn
 3060 3065 3070
 Gly Ser Ile Thr Ile Val Gly Thr Arg Pro Ser Asn His Gly Thr
 3075 3080 3085
 Tyr Arg Cys Val Ala Ser Asn Ala Tyr Gly Val Ala Gln Ser Val Val
 3090 3095 3100
 Asn Leu Ser Val His Gly Pro Pro Thr Val Ser Val Leu Pro Glu Gly
 3105 3110 3115 3120
 Pro Val Trp Val Lys Val Gly Lys Ala Val Thr Leu Glu Cys Val Ser
 3125 3130 3135
 Ala Gly Glu Pro Arg Ser Ser Ala Arg Trp Thr Arg Ile Ser Ser Thr
 3140 3145 3150
 Pro Ala Lys Leu Glu Gln Arg Thr Tyr Gly Leu Met Asp Ser His Ala
 3155 3160 3165
 Val Leu Gln Ile Ser Ser Ala Lys Pro Ser Asp Ala Gly Thr Tyr Val
 3170 3175 3180
 Cys Leu Ala Gln Asn Ala Leu Gly Thr Ala Gln Lys Gln Val Glu Val
 3185 3190 3195 3200
 Ile Val Asp Thr Gly Ala Met Ala Pro Gly Ala Pro Gln Val Gln Ala
 3205 3210 3215
 Glu Glu Ala Glu Leu Thr Val Glu Ala Gly His Thr Ala Thr Leu Arg
 3220 3225 3230
 Cys Ser Ala Thr Gly Ser Pro Ala Pro Thr Ile His Trp Ser Lys Leu

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3235 3240 3245
 Arg Ser Pro Leu Pro Trp Gln His Arg Leu Glu Gly Asp Thr Leu Ile
 3250 3255 3260
 Ile Pro Arg Val Ala Gln Gln Asp Ser Gly Gln Tyr Ile Cys Asn Ala
 3265 3270 3275 3280
 Thr Ser Pro Ala Gly His Ala Glu Ala Thr Ile Ile Leu His Val Glu
 3285 3290 3295
 Ser Pro Pro Tyr Ala Thr Thr Val Pro Glu His Ala Ser Val Gln Ala
 3300 3305 3310
 Gly Glu Thr Val Gln Leu Gln Cys Leu Ala His Gly Thr Pro Pro Leu
 3315 3320 3325
 Thr Phe Gln Trp Ser Arg Val Gly Ser Ser Leu Pro Gly Arg Ala Thr
 3330 3335 3340
 Ala Arg Asn Glu Leu Leu His Phe Glu Arg Ala Ala Pro Glu Asp Ser
 3345 3350 3355 3360
 Gly Arg Tyr Arg Cys Arg Val Thr Asn Lys Val Gly Ser Ala Glu Ala
 3365 3370 3375
 Phe Ala Gln Leu Leu Val Gln Gly Pro Pro Gly Ser Leu Pro Ala Thr
 3380 3385 3390
 Ser Ile Pro Ala Gly Ser Thr Pro Thr Val Gln Val Thr Pro Gln Leu
 3395 3400 3405
 Glu Thr Lys Ser Ile Gly Ala Ser Val Glu Phe His Cys Ala Val Pro
 3410 3415 3420
 Ser Asp Gln Gly Thr Gln Leu Arg Trp Phe Lys Glu Gly Gly Gln Leu
 3425 3430 3435 3440
 Pro Pro Gly His Ser Val Gln Asp Gly Val Leu Arg Ile Gln Asn Leu
 3445 3450 3455
 Asp Gln Ser Cys Gln Gly Thr Tyr Ile Cys Gln Ala His Gly Pro Trp
 3460 3465 3470
 Gly Lys Ala Gln Ala Ser Ala Gln Leu Val Ile Gln Ala Leu Pro Ser
 3475 3480 3485
 Val Leu Ile Asn Ile Arg Thr Ser Val Gln Thr Val Val Val Gly His
 3490 3495 3500
 Ala Val Glu Phe Glu Cys Leu Ala Leu Gly Asp Pro Lys Pro Gln Val
 3505 3510 3515 3520
 Thr Trp Ser Lys Val Gly Gly His Leu Arg Pro Gly Ile Val Gln Ser
 3525 3530 3535
 Gly Gly Val Val Arg Ile Ala His Val Glu Leu Ala Asp Ala Gly Gln
 3540 3545 3550
 Tyr Arg Cys Thr Ala Thr Asn Ala Ala Gly Thr Thr Gln Ser His Val
 3555 3560 3565
 Leu Leu Leu Val Gln Ala Leu Pro Gln Ile Ser Met Pro Gln Glu Val
 3570 3575 3580
 Arg Val Pro Ala Gly Ser Ala Ala Val Phe Pro Cys Ile Ala Ser Gly
 3585 3590 3595 3600
 Tyr Pro Thr Pro Asp Ile Ser Trp Ser Lys Leu Asp Gly Ser Leu Pro
 3605 3610 3615
 Pro Asp Ser Arg Leu Glu Asn Asn Met Leu Met Leu Pro Ser Val Arg
 3620 3625 3630
 Pro Gln Asp Ala Gly Thr Tyr Val Cys Thr Ala Thr Asn Arg Gln Gly
 3635 3640 3645
 Lys Val Lys Ala Phe Ala His Leu Gln Val Pro Glu Arg Val Val Pro
 3650 3655 3660
 Tyr Phe Thr Gln Thr Pro Tyr Ser Phe Leu Pro Leu Pro Thr Ile Lys
 3665 3670 3675 3680
 Asp Ala Tyr Arg Lys Phe Glu Ile Lys Ile Thr Phe Arg Pro Asp Ser
 3685 3690 3695
 Ala Asp Gly Met Leu Leu Tyr Asn Gly Gln Lys Arg Val Pro Gly Ser
 3700 3705 3710
 Pro Thr Asn Leu Ala Asn Arg Gln Pro Asp Phe Ile Ser Phe Gly Leu
 3715 3720 3725
 Val Gly Gly Arg Pro Glu Phe Arg Phe Asp Ala Gly Ser Gly Met Ala
 3730 3735 3740

Thr Ile Arg His Pro Thr Pro Leu Ala Leu Gly His Phe His Thr Val
 3745 3750 3755 3760
 Thr Leu Leu Arg Ser Leu Thr Gln Gly Ser Leu Ile Val Gly Asp Leu
 3765 3770 3775
 Ala Pro Val Asn Gly Thr Ser Gln Gly Lys Phe Gln Gly Leu Asp Leu
 3780 3785 3790
 Asn Glu Glu Leu Tyr Leu Gly Gly Tyr Pro Asp Tyr Gly Ala Ile Pro
 3795 3800 3805
 Lys Ala Gly Leu Ser Ser Gly Phe Ile Gly Cys Val Arg Glu Leu Arg
 3810 3815 3820
 Ile Gln Gly Glu Glu Ile Val Phe His Asp Leu Asn Leu Thr Ala His
 3825 3830 3835 3840
 Gly Ile Ser His Cys Pro Thr Cys Arg Asp Arg Pro Cys Gln Asn Gly
 3845 3850 3855
 Gly Gln Cys His Asp Ser Glu Ser Ser Tyr Val Cys Val Cys Pro
 3860 3865 3870
 Ala Gly Phe Thr Gly Ser Arg Cys Glu His Ser Gln Ala Leu His Cys
 3875 3880 3885
 His Pro Glu Ala Cys Gly Pro Asp Ala Thr Cys Val Asn Arg Pro Asp
 3890 3895 3900
 Gly Arg Gly Tyr Thr Cys Arg Cys His Leu Gly Arg Ser Gly Leu Arg
 3905 3910 3915 3920
 Cys Glu Glu Gly Val Thr Val Thr Thr Pro Ser Leu Ser Gly Ala Gly
 3925 3930 3935
 Ser Tyr Leu Ala Leu Pro Ala Leu Thr Asn Thr His His Glu Leu Arg
 3940 3945 3950
 Leu Asp Val Glu Phe Lys Pro Leu Ala Pro Asp Gly Val Leu Leu Phe
 3955 3960 3965
 Ser Gly Gly Lys Ser Gly Pro Val Glu Asp Phe Val Ser Leu Ala Met
 3970 3975 3980
 Val Gly Gly His Leu Glu Phe Arg Tyr Glu Leu Gly Ser Gly Leu Ala
 3985 3990 3995 4000
 Val Leu Arg Ser Ala Glu Pro Leu Ala Leu Gly Arg Trp His Arg Val
 4005 4010 4015
 Ser Ala Glu Arg Leu Asn Lys Asp Gly Ser Leu Arg Val Asn Gly Gly
 4020 4025 4030
 Arg Pro Val Leu Arg Ser Ser Pro Gly Lys Ser Gln Gly Leu Asn Leu
 4035 4040 4045
 His Thr Leu Leu Tyr Leu Gly Gly Val Glu Pro Ser Val Pro Leu Ser
 4050 4055 4060
 Pro Ala Thr Asn Met Ser Ala His Phe Arg Gly Cys Val Gly Glu Val
 4065 4070 4075 4080
 Ser Val Asn Gly Lys Arg Leu Asp Leu Thr Tyr Ser Phe Leu Gly Ser
 4085 4090 4095
 Gln Gly Ile Gly Gln Cys Tyr Asp Ser Ser Pro Cys Glu Arg Gln Pro
 4100 4105 4110
 Cys Gln His Gly Ala Thr Cys Met Pro Ala Gly Glu Tyr Glu Phe Gln
 4115 4120 4125
 Cys Leu Cys Arg Asp Gly Phe Lys Gly Asp Leu Cys Glu His Glu Glu
 4130 4135 4140
 Asn Pro Cys Gln Leu Arg Glu Pro Cys Leu His Gly Gly Thr Cys Gln
 4145 4150 4155 4160
 Gly Thr Arg Cys Leu Cys Leu Pro Gly Phe Ser Gly Pro Arg Cys Gln
 4165 4170 4175
 Gln Gly Ser Gly His Gly Ile Ala Glu Ser Asp Trp His Leu Glu Gly
 4180 4185 4190
 Ser Gly Gly Asn Asp Ala Pro Gly Gln Tyr Gly Ala Tyr Phe His Asp
 4195 4200 4205
 Asp Gly Phe Leu Ala Phe Pro Gly His Val Phe Ser Arg Ser Leu Pro
 4210 4215 4220
 Glu Val Pro Glu Thr Ile Glu Leu Glu Val Arg Thr Ser Thr Ala Ser
 4225 4230 4235 4240
 Gly Leu Leu Leu Trp Gln Gly Val Glu Val Gly Glu Ala Gly Gln Gly

templst.txt

Lys	Asp	Phe	Ile	Ser	Leu	Gly	Leu	Gln	Asp	Gly	His	Leu	Val	Phe	Arg
			4245					4250						4255	
Tyr	Gln	Leu	4260	Gly	Ser	Gly	Glu	Ala	Arg	Leu	Val	Ser	Glu	Asp	Pro
		4275						4280					4285		Ile
Asn	Asp	Gly	Glu	Trp	His	Arg	Val	Thr	Ala	Leu	Arg	Glu	Gly	Arg	Arg
		4290				4295					4300				
Gly	Ser	Ile	Gln	Val	Asp	Gly	Glu	Glu	Leu	Val	Ser	Gly	Arg	Ser	Pro
4305					4310					4315				4320	
Gly	Pro	Asn	Val	Ala	Val	Asn	Ala	Lys	Gly	Ser	Val	Tyr	Ile	Gly	Gly
			4325						4330					4335	
Ala	Pro	Asp	Val	Ala	Thr	Leu	Thr	Gly	Gly	Arg	Phe	Ser	Ser	Gly	Ile
			4340					4345					4350		
Thr	Gly	Cys	Val	Lys	Asn	Leu	Val	Leu	His	Ser	Ala	Arg	Pro	Gly	Ala
		4355					4360					4365			
Pro	Pro	Pro	Gln	Pro	Leu	Asp	Leu	Gln	His	Arg	Ala	Gln	Ala	Gly	Ala
		4370				4375					4380				
Asn	Thr	Arg	Pro	Cys	Pro	Ser									
4385					4390										

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 <212> PRT
 <213> human

<400> 3

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			20					25					30		
Arg	Gln	Pro	Asp	Phe	Ile	Ser	Phe	Gly	Leu	Val	Gly	Gly	Arg	Pro	Glu
		35					40					45			
Phe	Arg	Phe	Asp	Ala	Gly	Ser	Gly	Met	Ala	Thr	Ile	Arg	His	Pro	Thr
	50					55					60				
Pro	Leu	Ala	Leu	Gly	His	Phe	His	Thr	Val	Thr	Leu	Leu	Arg	Ser	Leu
65					70				75					80	
Thr	Gln	Gly	Ser	Leu	Ile	Val	Gly	Asp	Leu	Ala	Pro	Val	Asn	Gly	Thr
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Ser	Gln	Gly	Lys	Phe	Gln	Gly	Leu	Asp	Leu	Asn	Glu	Glu	Leu	Tyr	Leu
			100					105					110		
Gly	Gly	Tyr	Pro	Asp	Tyr	Gly	Ala	Ile	Pro	Lys	Ala	Gly	Leu	Ser	Ser
		115					120					125			
Gly	Phe	Ile	Gly	Cys	Val	Arg	Glu	Leu	Arg	Ile	Gln	Gly	Glu	Glu	Ile
		130				135					140				
Val	Phe	His	Asp	Leu	Asn	Leu	Thr	Ala	His	Gly	Ile	Ser	His	Cys	Pro
145					150					155					160
Thr	Cys	Arg	Asp	Arg	Pro	Cys	Gln	Asn	Gly	Gly	Gln	Cys	His	Asp	Ser
			165						170					175	
Glu	Ser	Ser	Ser	Tyr	Val	Cys	Val	Cys	Pro	Ala	Gly	Phe	Thr	Gly	Ser
			180					185					190		
Arg	Cys	Glu	His	Ser	Gln	Ala	Leu	His	Cys	His	Pro	Glu	Ala	Cys	Gly
		195					200					205			
Pro	Asp	Ala	Thr	Cys	Val	Asn	Arg	Pro	Asp	Gly	Arg	Gly	Tyr	Thr	Cys
		210				215					220				
Arg	Cys	His	Leu	Gly	Arg	Ser	Gly	Leu	Arg	Cys	Glu	Glu	Gly	Val	Thr
225					230					235					240
Val	Thr	Thr	Pro	Ser	Leu	Ser	Gly	Ala	Gly	Ser	Tyr	Leu	Ala	Leu	Pro
				245					250					255	
Ala	Leu	Thr	Asn	Thr	His	His	Glu	Leu	Arg	Leu	Asp	Val	Glu	Phe	Lys
			260					265					270		
Pro	Leu	Ala	Pro	Asp	Gly	Val	Leu	Leu	Phe	Ser	Gly	Gly	Lys	Ser	Gly
		275					280					285			
Pro	Val	Glu	Asp	Phe	Val	Ser	Leu	Ala	Met	Val	Gly	Gly	His	Leu	Glu

templst.txt

290 295 300
 Phe Arg Tyr Glu Leu Gly Ser Gly Leu Ala Val Leu Arg Ser Ala Glu
 305 310 315 320
 Pro Leu Ala Leu Gly Arg Trp His Arg Val Ser Ala Glu Arg Leu Asn
 325 330 335
 Lys Asp Gly Ser Leu Arg Val Asn Gly Gly Arg Pro Val Leu Arg Ser
 340 345 350
 Ser Pro Gly Lys Ser Gln Gly Leu Asn Leu His Thr Leu Tyr Leu
 355 360 365
 Gly Gly Val Glu Pro Ser Val Pro Leu Ser Pro Ala Thr Asn Met Ser
 370 375 380
 Ala His Phe Arg Gly Cys Val Gly Glu Val Ser Val Asn Gly Lys Arg
 385 390 395 400
 Leu Asp Leu Thr Tyr Ser Phe Leu Gly Ser Gln Gly Ile Gly Gln Cys
 405 410 415
 Tyr Asp Ser Ser Pro Cys Glu Arg Gln Pro Cys Gln His Gly Ala Thr
 420 425 430
 Cys Met Pro Ala Gly Glu Tyr Glu Phe Gln Cys Leu Cys Arg Asp Gly
 435 440 445
 Phe Lys Gly Asp Leu Cys Glu His Glu Glu Asn Pro Cys Gln Leu Arg
 450 455 460
 Glu Pro Cys Leu His Gly Gly Thr Cys Gln Gly Thr Arg Cys Leu Cys
 465 470 475 480
 Leu Pro Gly Phe Ser Gly Pro Arg Cys Gln Gln Gly Ser Gly His Gly
 485 490 495
 Ile Ala Glu Ser Asp Trp His Leu Glu Gly Ser Gly Gly Asn Asp Ala
 500 505 510
 Pro Gly Gln Tyr Gly Ala Tyr Phe His Asp Asp Gly Phe Leu Ala Phe
 515 520 525
 Pro Gly His Val Phe Ser Arg Ser Leu Pro Glu Val Pro Glu Thr Ile
 530 535 540
 Glu Leu Glu Val Arg Thr Ser Thr Ala Ser Gly Leu Leu Leu Trp Gln
 545 550 555 560
 Gly Val Glu Val Gly Glu Ala Gly Gln Gly Lys Asp Phe Ile Ser Leu
 565 570 575
 Gly Leu Gln Asp Gly His Leu Val Phe Arg Tyr Gln Leu Gly Ser Gly
 580 585 590
 Glu Ala Arg Leu Val Ser Glu Asp Pro Ile Asn Asp Gly Glu Trp His
 595 600 605
 Arg Val Thr Ala Leu Arg Glu Gly Arg Arg Gly Ser Ile Gln Val Asp
 610 615 620
 Gly Glu Glu Leu Val Ser Gly Arg Ser Pro Gly Pro Asn Val Ala Val
 625 630 635 640
 Asn Ala Lys Gly Ser Val Tyr Ile Gly Gly Ala Pro Asp Val Ala Thr
 645 650 655
 Leu Thr Gly Gly Arg Phe Ser Ser Gly Ile Thr Gly Cys Val Lys Asn
 660 665 670
 Leu Val Leu His Ser Ala Arg Pro Gly Ala Pro Pro Gln Pro Leu
 675 680 685
 Asp Leu Gln His Arg Ala Gln Ala Gly Ala Asn Thr Arg Pro Cys Pro
 690 695 700
 Ser
 705

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 <211> 495
 <212> PRT
 <213> human

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 1 5 10 15
 Tyr Asn Gly Gln Lys Arg Val Pro Gly Ser Pro Thr Asn Leu Ala Asn

temp1st.txt

temp1st.txt																
			20						25				30			
Arg	Gln	Pro 35	Asp	Phe	Ile	Ser	Phe 40	Gly	Leu	Val	Gly	Gly 45	Arg	Pro	Glu	
Phe	Arg 50	Phe	Asp	Ala	Gly	Ser 55	Gly	Met	Ala	Thr	Ile 60	Arg	His	Pro	Thr	
Pro 65	Leu	Ala	Leu	Gly	His 70	Phe	His	Thr	Val	Thr 75	Leu	Leu	Arg	Ser	Leu 80	
Thr	Gln	Gly	Ser	Leu 85	Ile	Val	Gly	Asp	Leu 90	Ala	Pro	Val	Asn 95	Gly	Thr	
Ser	Gln	Gly	Lys 100	Phe	Gln	Gly	Leu	Asp 105	Leu	Asn	Glu	Glu	Leu 110	Tyr	Leu	
Gly	Gly	Tyr 115	Pro	Asp	Tyr	Gly	Ala 120	Ile	Pro	Lys	Ala	Gly 125	Leu	Ser	Ser	
Gly	Phe 130	Ile	Gly	Cys	Val	Arg 135	Glu	Leu	Arg	Ile	Gln 140	Gly	Glu	Glu	Ile	
Val 145	Phe	His	Asp	Leu	Asn 150	Leu	Thr	Ala	His	Gly 155	Ile	Ser	His	Cys	Pro 160	
Thr	Cys	Arg	Asp	Arg 165	Pro	Cys	Gln	Asn	Gly 170	Gly	Gln	Cys	His	Asp 175	Ser	
Glu	Ser	Ser	Ser 180	Tyr	Val	Cys	Val	Cys 185	Pro	Ala	Gly	Phe	Thr 190	Gly	Ser	
Arg	Cys	Glu 195	His	Ser	Gln	Ala	Leu 200	His	Cys	His	Pro	Glu 205	Ala	Cys	Gly	
Pro	Asp 210	Ala	Thr	Cys	Val	Asn 215	Arg	Pro	Asp	Gly	Arg 220	Gly	Tyr	Thr	Cys	
Arg 225	Cys	His	Leu	Gly	Arg 230	Ser	Gly	Leu	Arg	Cys 235	Glu	Glu	Gly	Val	Thr 240	
Val	Thr	Thr	Pro	Ser 245	Leu	Ser	Gly	Ala	Gly 250	Ser	Tyr	Leu	Ala	Leu 255	Pro	
Ala	Leu	Thr	Asn 260	Thr	His	His	Glu	Leu 265	Arg	Leu	Asp	Val	Glu 270	Phe	Lys	
Pro	Leu	Ala 275	Pro	Asp	Gly	Val	Leu 280	Leu	Phe	Ser	Gly	Gly 285	Lys	Ser	Gly	
Pro	Val 290	Glu	Asp	Phe	Val	Ser 295	Leu	Ala	Met	Val	Gly 300	Gly	His	Leu	Glu	
Phe 305	Arg	Tyr	Glu	Leu	Gly 310	Ser	Gly	Leu	Ala	Val 315	Leu	Arg	Ser	Ala	Glu 320	
Pro	Leu	Ala	Leu	Gly 325	Arg	Trp	His	Arg	Val 330	Ser	Ala	Glu	Arg	Leu 335	Asn	
Lys	Asp	Gly	Ser 340	Leu	Arg	Val	Asn	Gly 345	Gly	Arg	Pro	Val	Leu 350	Arg	Ser	
Ser	Pro	Gly 355	Lys	Ser	Gln	Gly	Leu 360	Asn	Leu	His	Thr	Leu 365	Leu	Tyr	Leu	
Gly	Gly 370	Val	Glu	Pro	Ser	Val 375	Pro	Leu	Ser	Pro	Ala 380	Thr	Asn	Met	Ser	
Ala 385	His	Phe	Arg	Gly	Cys 390	Val	Gly	Glu	Val	Ser 395	Val	Asn	Gly	Lys	Arg 400	
Leu	Asp	Leu	Thr	Tyr 405	Ser	Phe	Leu	Gly	Ser 410	Gln	Gly	Ile	Gly	Gln 415	Cys	
Tyr	Asp	Ser	Ser 420	Pro	Cys	Glu	Arg	Gln 425	Pro	Cys	Gln	His	Gly 430	Ala	Thr	
Cys	Met	Pro 435	Ala	Gly	Glu	Tyr	Glu 440	Phe	Gln	Cys	Leu	Cys 445	Arg	Asp	Gly	
Phe	Lys 450	Gly	Asp	Leu	Cys	Glu 455	His	Glu	Glu	Asn	Pro 460	Cys	Gln	Leu	Arg	
Glu 465	Pro	Cys	Leu	His	Gly 470	Gly	Thr	Cys	Gln	Gly 475	Thr	Arg	Cys	Leu	Cys 480	
Leu	Pro	Gly	Phe	Ser 485	Gly	Pro	Arg	Cys	Gln 490	Gly	Gly	Ser	Gly	His 495		

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<212>	PRT

<213> human

<400> 5

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      20      25      30
Arg Gln Pro Asp Phe Ile Ser Phe Gly Leu Val Gly Gly Arg Pro Glu
      35      40      45
Phe Arg Phe Asp Ala Gly Ser Gly Met Ala Thr Ile Arg His Pro Thr
      50      55      60
Pro Leu Ala Leu Gly His Phe His Thr Val Thr Leu Leu Arg Ser Leu
      65      70      75      80
Thr Gln Gly Ser Leu Ile Val Gly Asp Leu Ala Pro Val Asn Gly Thr
      85      90      95
Ser Gln Gly Lys Phe Gln Gly Leu Asp Leu Asn Glu Glu Leu Tyr Leu
      100      105      110
Gly Gly Tyr Pro Asp Tyr Gly Ala Ile Pro Lys Ala Gly Leu Ser Ser
      115      120      125
Gly Phe Ile Gly Cys Val Arg Glu Leu Arg Ile Gln Gly Glu Glu Ile
      130      135      140
Val Phe His Asp Leu Asn Leu Thr Ala His Gly Ile Ser His Cys Pro
      145      150      155      160
Thr Cys Arg Asp Arg Pro Cys Gln Asn Gly Gly Gln Cys His Asp Ser
      165      170      175
Glu Ser Ser Ser Tyr Val Cys Val Cys Pro Ala Gly Phe Thr Gly Ser
      180      185      190
Arg Cys Glu His Ser Gln Ala Leu His Cys His Pro Glu Ala Cys Gly
      195      200      205
Pro Asp Ala Thr Cys Val Asn Arg Pro Asp Gly Arg Gly Tyr Thr Cys
      210      215      220
Arg Cys His Leu Gly Arg Ser Gly Leu Arg Cys Glu Glu Gly Val Thr
      225      230      235      240

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<211> 161

<212> PRT

<213> human

<400> 6

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Tyr Asn Gly Gln Lys Arg Val Pro Gly Ser Pro Thr Asn Leu Ala Asn
      20      25      30
Arg Gln Pro Asp Phe Ile Ser Phe Gly Leu Val Gly Gly Arg Pro Glu
      35      40      45
Phe Arg Phe Asp Ala Gly Ser Gly Met Ala Thr Ile Arg His Pro Thr
      50      55      60
Pro Leu Ala Leu Gly His Phe His Thr Val Thr Leu Leu Arg Ser Leu
      65      70      75      80
Thr Gln Gly Ser Leu Ile Val Gly Asp Leu Ala Pro Val Asn Gly Thr
      85      90      95
Ser Gln Gly Lys Phe Gln Gly Leu Asp Leu Asn Glu Glu Leu Tyr Leu
      100      105      110
Gly Gly Tyr Pro Asp Tyr Gly Ala Ile Pro Lys Ala Gly Leu Ser Ser
      115      120      125
Gly Phe Ile Gly Cys Val Arg Glu Leu Arg Ile Gln Gly Glu Glu Ile
      130      135      140
Val Phe His Asp Leu Asn Leu Thr Ala His Gly Ile Ser His Cys Pro
      145      150      155      160
Thr

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templst.txt

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<211> 79
<212> PRT
<213> human

<400> 7
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20 25 30
Cys Glu His Ser Gln Ala Leu His Cys His Pro Glu Ala Cys Gly Pro
35 40 45
Asp Ala Thr Cys Val Asn Arg Pro Asp Gly Arg Gly Tyr Thr Cys Arg
50 55 60
Cys His Leu Gly Arg Ser Gly Leu Arg Cys Glu Gly Val Thr
65 70 75

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<211> 255
<212> PRT
<213> human

<400> 8
Val Thr Thr Pro Ser Leu Ser Gly Ala Gly Ser Tyr Leu Ala Leu Pro
1 5 10 15
Ala Leu Thr Asn Thr His His Glu Leu Arg Leu Asp Val Glu Phe Lys
20 25 30
Pro Leu Ala Pro Asp Gly Val Leu Leu Phe Ser Gly Gly Lys Ser Gly
35 40 45
Pro Val Glu Asp Phe Val Ser Leu Ala Met Val Gly Gly His Leu Glu
50 55 60
Phe Arg Tyr Glu Leu Gly Ser Gly Leu Ala Val Leu Arg Ser Ala Glu
65 70 75 80
Pro Leu Ala Leu Gly Arg Trp His Arg Val Ser Ala Glu Arg Leu Asn
85 90 95
Lys Asp Gly Ser Leu Arg Val Asn Gly Gly Arg Pro Val Leu Arg Ser
100 105 110
Ser Pro Gly Lys Ser Gln Gly Leu Asn Leu His Thr Leu Leu Tyr Leu
115 120 125
Gly Gly Val Glu Pro Ser Val Pro Leu Ser Pro Ala Thr Asn Met Ser
130 135 140
Ala His Phe Arg Gly Cys Val Gly Glu Val Ser Val Asn Gly Lys Arg
145 150 155 160
Leu Asp Leu Thr Tyr Ser Phe Leu Gly Ser Gln Gly Ile Gly Gln Cys
165 170 175
Tyr Asp Ser Ser Pro Cys Glu Arg Gln Pro Cys Gln His Gly Ala Thr
180 185 190
Cys Met Pro Ala Gly Glu Tyr Glu Phe Gln Cys Leu Cys Arg Asp Gly
195 200 205
Phe Lys Gly Asp Leu Cys Glu His Glu Glu Asn Pro Cys Gln Leu Arg
210 215 220
Glu Pro Cys Leu His Gly Gly Thr Cys Gln Gly Thr Arg Cys Leu Cys
225 230 235 240
Leu Pro Gly Phe Ser Gly Pro Arg Cys Gln Gly Ser Gly His
245 250 255

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<212> PRT
<213> human

<400> 9
Cys Glu Arg Gln Pro Cys Gln His Gly Ala Thr Cys Met Pro Ala Gly

templst.txt

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Cys	Glu	His	Glu	Glu	Asn	Pro	Cys	Gln	Leu	Arg	Glu	Pro	Cys	Leu	His		
		35					40					45					
Gly	Gly	Thr	Cys	Gln	Gly	Thr	Arg	Cys	Leu	Cys	Leu	Pro	Gly	Phe	Ser		
	50					55					60						
Gly	Pro	Arg	Cys	Gln	Gln	Gly	Ser	Gly	His	Gly	Ile	Ala	Glu	Ser	Asp		
65				70					75						80		
Trp	His	Leu	Glu	Gly	Ser	Gly	Gly	Asn	Asp	Ala	Pro	Gly	Gln	Tyr	Gly		
			85					90						95			
Ala	Tyr	Phe	His	Asp	Asp	Gly	Phe	Leu	Ala	Phe	Pro	Gly	His	Val	Phe		
			100					105					110				
Ser	Arg	Ser	Leu	Pro	Glu	Val	Pro	Glu	Thr	Ile	Glu	Leu	Glu	Val	Arg		
		115					120					125					
Thr	Ser	Thr	Ala	Ser	Gly	Leu	Leu	Leu	Trp	Gln	Gly	Val	Glu	Val	Gly		
	130					135					140						
Glu	Ala	Gly	Gln	Gly	Lys	Asp	Phe	Ile	Ser	Leu	Gly	Leu	Gln	Asp	Gly		
145				150					155						160		
His	Leu	Val	Phe	Arg	Tyr	Gln	Leu	Gly	Ser	Gly	Glu	Ala	Arg	Leu	Val		
			165					170					175				
Ser	Glu	Asp	Pro	Ile	Asn	Asp	Gly	Glu	Trp	His	Arg	Val	Thr	Ala	Leu		
		180						185					190				
Arg	Glu	Gly	Arg	Arg	Gly	Ser	Ile	Gln	Val	Asp	Gly	Glu	Glu	Leu	Val		
	195					200						205					
Ser	Gly	Arg	Ser	Pro	Gly	Pro	Asn	Val	Ala	Val	Asn	Ala	Lys	Gly	Ser		
	210					215					220						
Val	Tyr	Ile	Gly	Gly	Ala	Pro	Asp	Val	Ala	Thr	Leu	Thr	Gly	Gly	Arg		
225				230					235						240		
Phe	Ser	Ser	Gly	Ile	Thr	Gly	Cys	Val	Lys	Asn	Leu	Val	Leu	His	Ser		
			245					250					255				
Ala	Arg	Pro	Gly	Ala	Pro	Pro	Pro	Gln	Pro	Leu	Asp	Leu	Gln	His	Arg		
		260						265					270				
Ala	Gln	Ala	Gly	Ala	Asn	Thr	Arg	Pro	Cys	Pro	Ser						
		275					280										

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 <212> PRT
 <213> human

<400>	10																
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Ala	Pro	Gly	Gln	Tyr	Gly	Ala	Tyr	Phe	His	Asp	Asp	Gly	Phe	Leu	Ala		
		20						25					30				
Phe	Pro	Gly	His	Val	Phe	Ser	Arg	Ser	Leu	Pro	Glu	Val	Pro	Glu	Thr		
		35					40					45					
Ile	Glu	Leu	Glu	Val	Arg	Thr	Ser	Thr	Ala	Ser	Gly	Leu	Leu	Leu	Trp		
	50					55					60						
Gln	Gly	Val	Glu	Val	Gly	Glu	Ala	Gly	Gln	Gly	Lys	Asp	Phe	Ile	Ser		
65				70					75					80			
Leu	Gly	Leu	Gln	Asp	Gly	His	Leu	Val	Phe	Arg	Tyr	Gln	Leu	Gly	Ser		
			85					90					95				
Gly	Glu	Ala	Arg	Leu	Val	Ser	Glu	Asp	Pro	Ile	Asn	Asp	Gly	Glu	Trp		
		100					105						110				
His	Arg	Val	Thr	Ala	Leu	Arg	Glu	Gly	Arg	Arg	Gly	Ser	Ile	Gln	Val		
		115					120					125					
Asp	Gly	Glu	Glu	Leu	Val	Ser	Gly	Arg	Ser	Pro	Gly	Pro	Asn	Val	Ala		
	130					135					140						
Val	Asn	Ala	Lys	Gly	Ser	Val	Tyr	Ile	Gly	Gly	Ala	Pro	Asp	Val	Ala		
145				150					155						160		
Thr	Leu	Thr	Gly	Gly	Arg	Phe	Ser	Ser	Gly	Ile	Thr	Gly	Cys	Val	Lys		

														templst.txt										
														165					170					175
Asn	Leu	Val	Leu	His	Ser	Ala	Arg	Pro	Gly	Ala	Pro	Pro	Pro	Gln	Pro									
			180												185				190					
Leu	Asp	Leu	Gln	His	Arg	Ala	Gln	Ala	Gly	Ala	Asn	Thr	Arg	Pro	Cys									
		195												200				205						
Pro	Ser																							
210																								